

## WHAT IS CLAIMED IS:

1. A foam, comprising a blend of
  - (a) from 0.1 to 4.9 weight percent ethylene/styrene interpolymer; and
  - 5 (b) from 95.1 to 99.9 weight percent polyethylene homopolymer or copolymer, said weight percentages being based on the total amount of (a) and (b) in the blend.
2. The foam of claim 1, wherein the ethylene/styrene interpolymer is present  
10 in the blend at a weight percentage ranging from 1 to 4 and the polyethylene is present in the blend at a weight percentage ranging from 96 to 99.
3. The foam of claim 1, wherein the foam has an open-cell content of less  
15 than 20 volume percent.
4. The foam of claim 3, wherein the foam has an open-cell content of less  
than 15 volume percent.
5. The foam of claim 1, wherein the foam is in the form of a sheet having a  
20 thickness ranging from about 0.015 to about 5 inches.
6. The foam of claim 1, wherein the foam has a density ranging from about  
0.5 to about 15 pounds/cubic foot.
- 25 7. The foam of claim 1, wherein the ethylene/styrene interpolymer comprises a styrene component ranging from about 20 to about 80 weight percent.
8. The foam of claim 1, wherein said polyethylene homopolymer or  
copolymer comprises at least one material selected from low density  
30 polyethylene, high density polyethylene, and ethylene/alpha-olefin copolymer.

9. A method for making a foam, comprising
- (a) blending
    - (1) from 0.1 to 4.9 weight percent ethylene/styrene interpolymers; and
    - (2) from 95.1 to 99.9 weight percent polyethylene homopolymer or copolymer, said weight percentages being based on the total amount of (1) and (2) in the blend;
  - (b) mixing a blowing agent with the blend of step (a); and
  - (c) causing the blowing agent to expand within the mixture of step (b),
- thereby forming a foam.

10. The method of claim 9, wherein the blowing agent comprises a physical blowing agent.

11. The method of claim 9, wherein the ethylene/styrene interpolymers are present in the blend at a weight percentage ranging from 1 to 4 and the polyethylene is present in the blend at a weight percentage ranging from 96 to 99.

12. The method of claim 9, wherein the ethylene/styrene interpolymers are present in the blend at a weight percentage ranging from 1 to 4 and the polyethylene is present in the blend at a weight percentage ranging from 96 to 99.

13. The method of claim 12, wherein the foam has an open-cell content of less than 20 volume percent.

14. The method of claim 9, wherein the foam is in the form of a sheet having a thickness ranging from about 0.015 to about 5 inches.

15. The method of claim 9, wherein the foam has a density ranging from about 0.5 to about 15 pounds/cubic foot.

16. The method of claim 9, wherein the ethylene/styrene interpolymers  
5 comprises a styrene component ranging from about 20 to about 80 weight percent.

17. The method of claim 9, wherein said polyethylene homopolymer or  
copolymer comprises at least one material selected from low density  
10 polyethylene, high density polyethylene, and ethylene/alpha-olefin copolymer.